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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,332	01/10/2001	Song Hak Kim	GK0001	9127

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EXAMINER

CLARK, SHEILA V

ART UNIT PAPER NUMBER

2815

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/758,332

Applicant(s)

KIM ET AL.

Examiner

S. V. Clark

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 8-16, 27-29 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6, 8-16, 27-29, 31-33 and 103 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) .<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)               |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4-1-05</u> . | 6) <input type="checkbox"/> Other: _____  |

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Claims 1-3, 6, 8-16, 27-29, 31-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification is choppy in many areas and provides many components in the discussion of the invention but fails to define said components so that their function and association to the instant invention may be clearly understood. The specification describes the gate function relative to a lead frame. Gates relative to a lead frame are generally referred to with respect to the mold resin structure, which has a gate for injecting the mold whereby the lead frame is held between the molds. The gate is usually referred to as a structure of the mold ( see newly cited references). What is the function of gate of the instant invention which is deemed to be a component of the lead frame?

Also the disclosure fails to provide details relative to the function of the lead box and lead eye box.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims continue contain areas that lack clarity relative to the gate. In claim 3 it is unclear to what type of component the " gate" refers. A gate can have many definitions (a mechanical structure, a region of a transistor, etc.) and the invention

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identifies the " gate" as a component of a lead frame. This should be identified as such in the claims. Clarity is suggested.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 in so far as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon.

Moon shows a clamp 11, window 12A or 22A, lead frame 25 and gate observation hole 5. It would have been obvious to one having ordinary skill in this art to provide that the gate hole of Moon would provide a gate visible there through as said name would obviously suggest. Said clamp assembly is used for the purpose of improving wire bonding and avoid misalignment of the die and lead frame. Lead frames are generally plated which would obviously include any lead frame component such as a gate.

Claims 1-3, 6, 8-16, 27-29, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's prior art figures in view of Moon.

Applicant's prior art figures 9-14 and the admitted prior art in discussed in the disclosure on pages 1-10 show, discuss or suggest use of the various features recited in the claims except for the observation holes recited in claims 1 formed in an outer circumference of a window to set the gate of the lead frame. Moon shows a clamp 11, window 12A or 22A, lead frame 25 and gate hole 5. It would have been obvious to one

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having ordinary skill in this art to provide an observation hole in the clamp of the prior art to improve alignment in view of the teachings of Moon for Moon teaches use of said hole for the purpose of improving wire bonding and avoid misalignment of the die and lead frame.

The absence of a discussion of limiting the lead frame of the applicant's prior art and Moon is deemed to suggest use of conventional materials such as those recited in claims 5 and 6 which may be a plated layers.

Claims 1-3, 6, 8-16, 27-29, 31-33 are rejected.

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Applicant provides function of certain components in his arguments but these features should be disclosed in the disclosure.

Any inquiry concerning this communication should be directed to S. V. Clark at telephone number (571) 272-1725.

  
S. V. Clark  
Primary Examiner  
Art Unit 2815

April 16, 2005